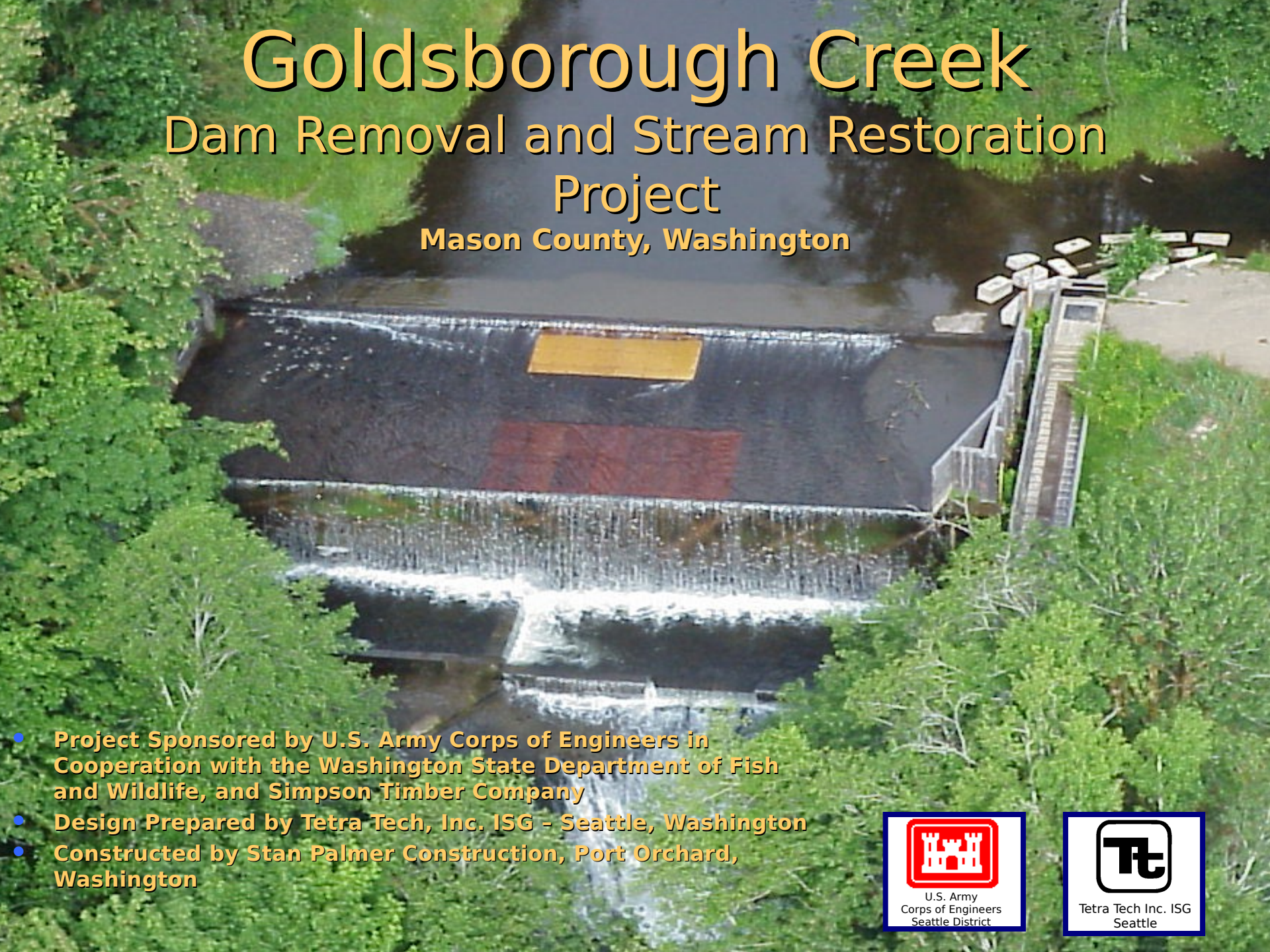
Goldsborough Creek

Dam Removal and Stream Restoration Project

Mason County, Washington



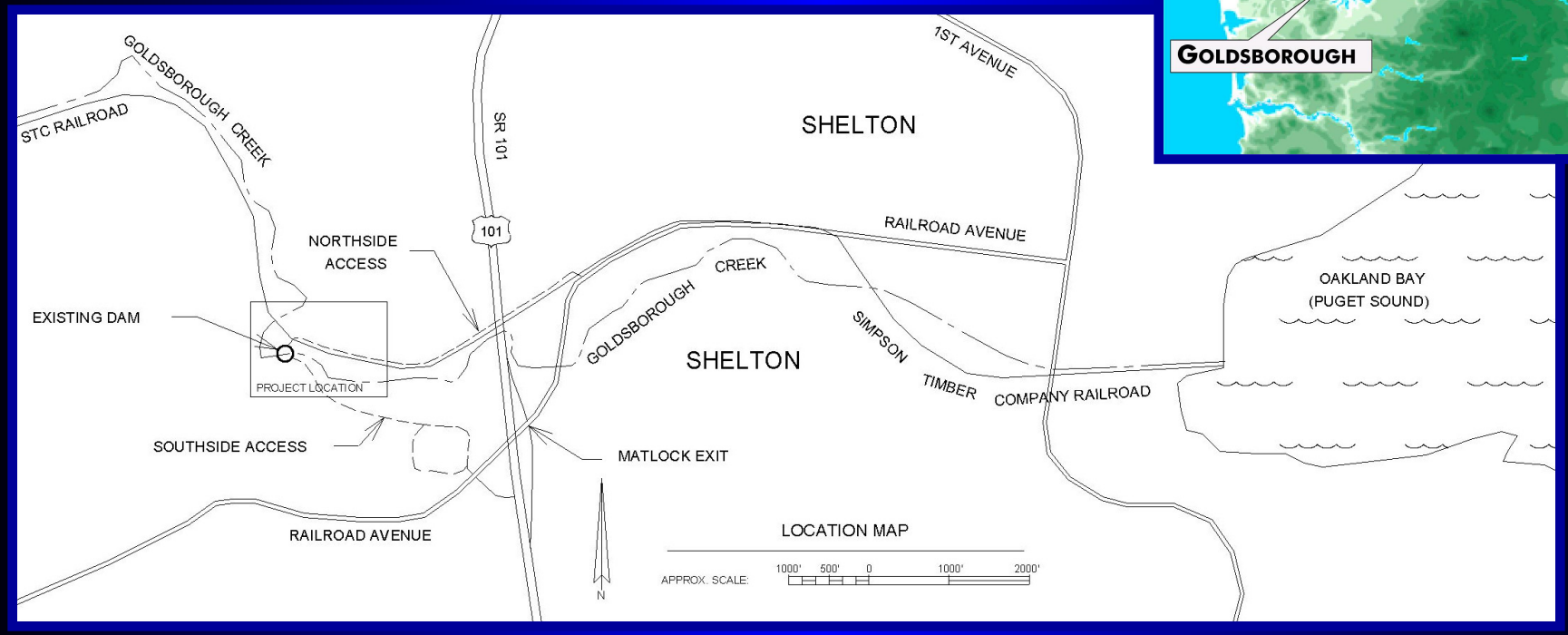
- **Project Sponsored by U.S. Army Corps of Engineers in Cooperation with the Washington State Department of Fish and Wildlife, and Simpson Timber Company**
- **Design Prepared by Tetra Tech, Inc. ISG – Seattle, Washington**
- **Constructed by Stan Palmer Construction, Port Orchard, Washington**

U.S. Army
Corps of Engineers
Seattle District

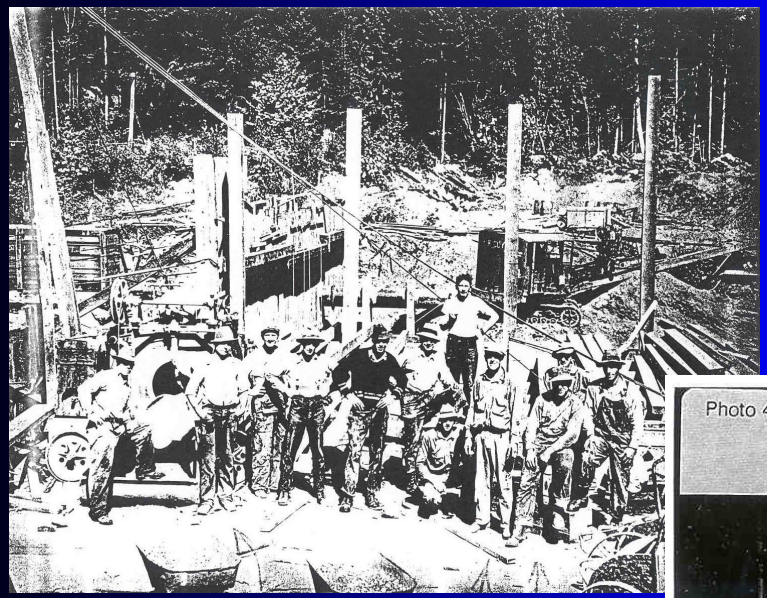
Tetra Tech Inc. ISG
Seattle

Project Location

- Goldsborough Creek drains ~50 sm watershed to Oakland Bay, a fingerlet of Puget Sound
- Goldsborough Creek Damsite is 2 miles upstream of outlet



Project Background
Dam History



- Dam Built in 1921
- Modified in 1932
- Abandoned in 1950’s
- Stabilized in 1997

Photo 4 Goldsborough Creek dam and powerhouse with original fishway, no falls shown. Outlet of penstock pipe is under powerhouse just above streambed level. 1920’s-1930’s.

- Log Holding Pond
- Hydroelectric
- Water Supply

Project Objective

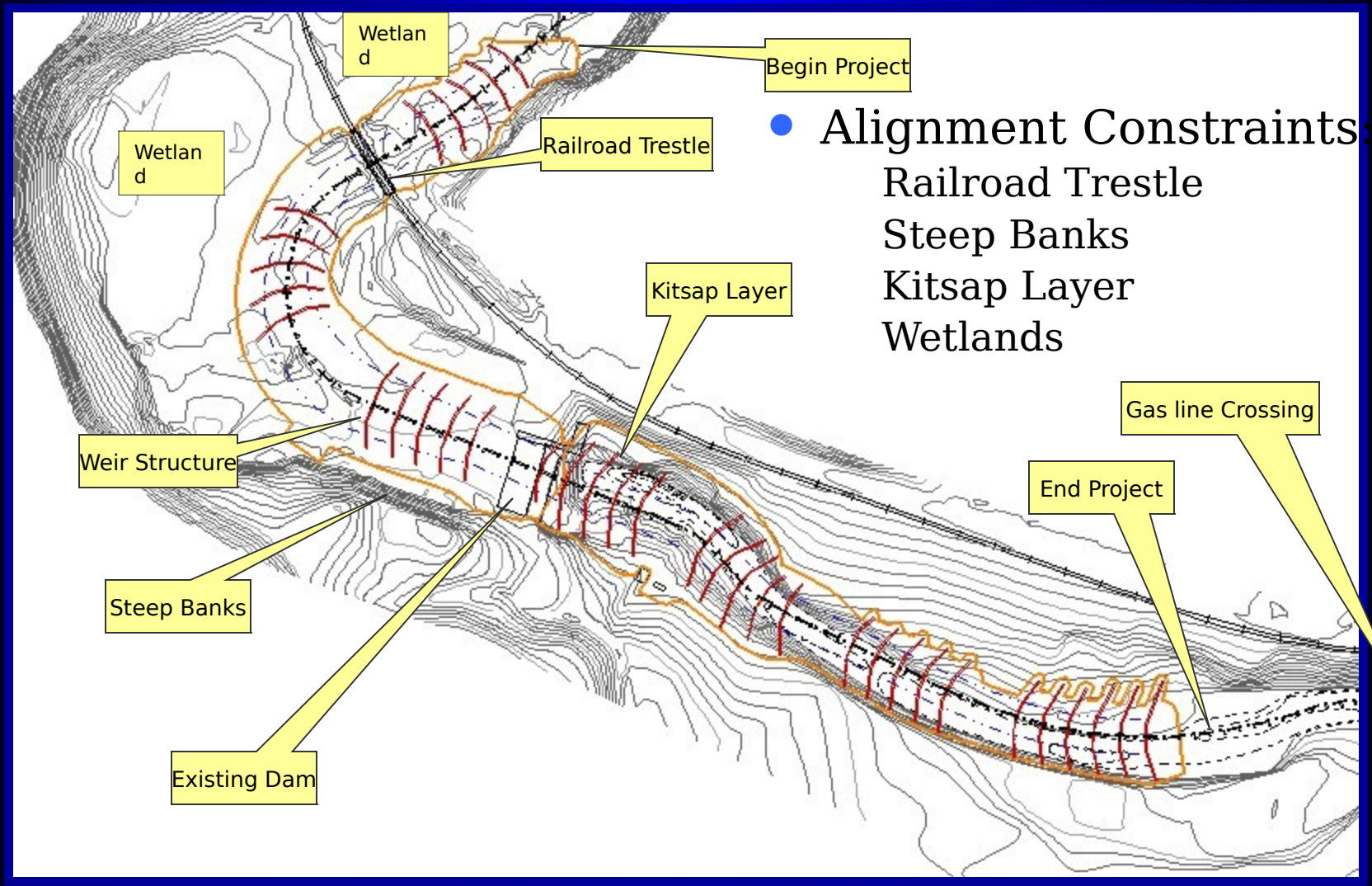
Restore fish passage to ~13 river miles of high quality fish habitat above the dam

Planning Criteria

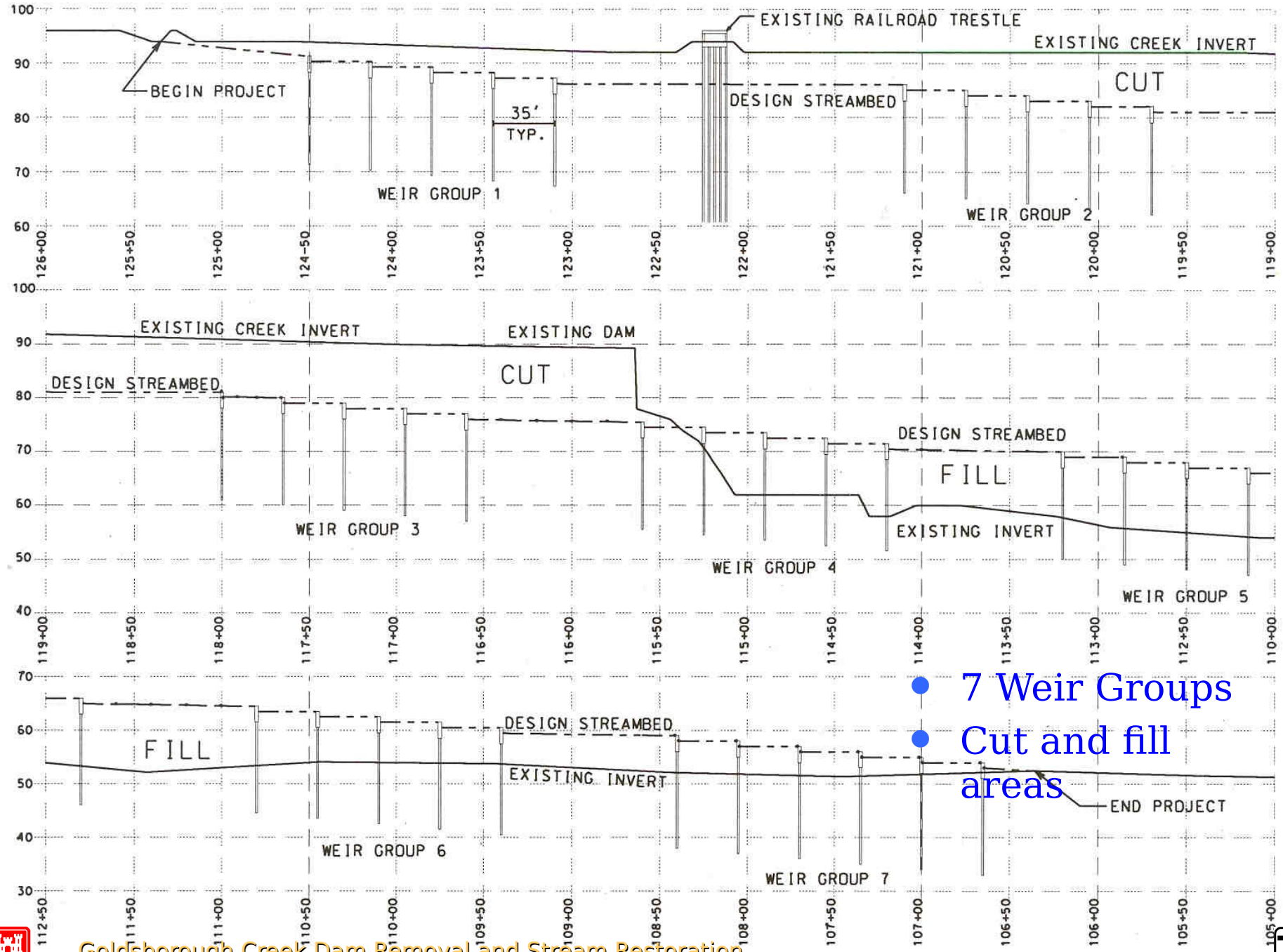
- Outputs
- Incremental Cost Benefit Analysis
- Acceptability
- Completeness
- Effectiveness
- Partnership Context
- Reasonableness of costs

Stream Restoration

General Plan



- Alignment Constraints:
  - Railroad Trestle
  - Steep Banks
  - Kitsap Layer
  - Wetlands



- 7 Weir Groups
- Cut and fill areas

Diversion

Inlet Structure and Coffer Dam

Outlet Structure and Energy Dissipator

- WDFW Downstream Fish Passage Criteria
- Contractor Designed
- Reviewed and Approved

Simpson Railroad Trestle

GOLDSBOROUGH DAM, WA

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Rewatering

Previous Dam Location – Post Construction

First Flood Event, November 2001

Project Costs

- Feasibility Phase - $544,000
- Plans and Specifications - $393,000
- Final Construction Cost - $3.49 million
  - In-Kind $220,000
- Monitoring - $250,000
- LER - $74,000

Lessons Learned

- No concern / Question is too small
- Verify Real Estate – Do pre –Construction survey
- Think / plan for groundwater diversion
- Develop Water Quality Plan incl. re-watering
- Consider impacted infrastructure
- Plan for Sponsor / Public interest